

WHAT IS CLAIMED IS:

1. A method to account for changing image contrast due to specimen charging in e-beam or ion beam wafer/slider/mask inspection and measurement tools, comprising:

if a site on a specimen being imaged fails a pattern recognition test when compared to a first template, using a second template configured with a different contrast than the first template for a second image comparison with the site.

2. The method of Claim 1, wherein the second template is used in the event of a failure after executing a stage search in response to the failure.

3. The method of Claim 2, wherein a stage search is executed only in the event of a failure using the first template.

4. The method of Claim 1, wherein the first template is derived from a first image frame of a first site of the specimen, and the second template is derived from a second image frame of the first site of the specimen obtained after an electrical charge has been induced in the specimen.

5. The method of Claim 1, further comprising:

interpolating an image contrast between the first and second templates to

derive an intermediate template.

6. An inspection/measurement system for wafers, sliders, and photomasks, comprising:

a source of an imaging beam, the source being selected from the group consisting of: electron beam sources, and ion beam sources; and

a processor receiving images of sites of a specimen irradiated by the imaging beam, the processor executing logic comprising:

obtaining a first template from a first image frame of a first location on the specimen when the first location is relatively free of electric charge;

obtaining a second template from a second image frame of the first location on the specimen when the first location is substantially electrically charged; and

using the templates to execute an inspection of the specimen.

7. The system of Claim 6, wherein the inspection uses pattern recognition tests for site coordination verification.

8. The system of Claim 6, wherein the logic uses the second template in the event of a failure of a test using the first template after executing a stage search in response to the failure.

9. The system of Claim 8, wherein the logic executes a stage search only in the event of a failure using the first template.

10. The system of Claim 6, wherein the logic further comprises:
interpolating image contrasts between the first and second templates to derive an intermediate template.

11. A computerized wafer test system comprising:
first means for comparing, using pattern recognition, an image of a site of specimen to a first template;
means for determining whether the site passes or fails based on the first comparing means; and
second means for comparing, in response to the means for determining and using pattern recognition, an image of the site of the specimen to a second template, the means for determining whether the site passes or fails based on the second comparing means.

12. The system of Claim 11, wherein the means for comparing and means for determining are implemented in hardware and/or software logic circuits.

13. The system of Claim 11, comprising means for image contrast interpolation

between the first and second templates to derive an intermediate template.